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This report covers the first year (July 1967-June 1968) of a 2-year cooperative education program. During this time, 359 students were enrolled in courses in aviation, business, education, physical and natural science, engineering, general technical, and liberal arts; another 84 were in a special V.A. Hospital project. The design and objectives are described for the different areas of study. From advisory meetings, student response, and one year's test of the program's basic design, certain observations were made. Business men, advisory committees, students, and educators were enthusiastic about the program. Students reported a new sense of contact, of community involvement, and of increased academic motivation. The relationship of career goal and work experience was of prime interest to the students. Field experience does not replace general education requirements, but adds depth and enrichment to the major study. Opportunities for students to get experience beyond the present offerings have been sought. Employers' evaluations have been universally favorable to the program. Development of work-study relationships for students who are in difficulty with traditional courses is emphasized and successes documented. Veterans and others in financial need particularly appreciate the change to combine work and study. For some of the courses, transfer arrangements have been made with other state schools and colleges. (HH)

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PARTIAL REPORT FOR DISTRIBUTION

COOPERATIVE EDUCATION AT COLLEGE OF SAN MATEO

A REPORT TO THE FORD FOUNDATION
ON THE FIRST YEAR OF PROGRESS IN
A TWO-YEAR DEVELOPMENTAL PROGRAM.

STATISTICAL INFORMATION

A FINANCIAL REPORT

THE BASIC DESIGN

BUSINESS & TECHNICAL STUDENTS

CO-OP - DISTRIBUTIVE CAREERS PROJECT

CO-OP - VISTA PROJECT

TEACHER ASSISTANT COOPERATIVE PROGRAM

NEW CAREERS THROUGH COOPERATIVE EDUCATION
(V A Hospital, Evening College)

CJCA - CROOTS COMMITTEE RECOMMENDATION

EVALUATION

CONSULTANTS & ADVISORY GROUP

JC 690 297

UNIVERSITY OF CALIF.
LOS ANGELES

AUG 28 1969

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

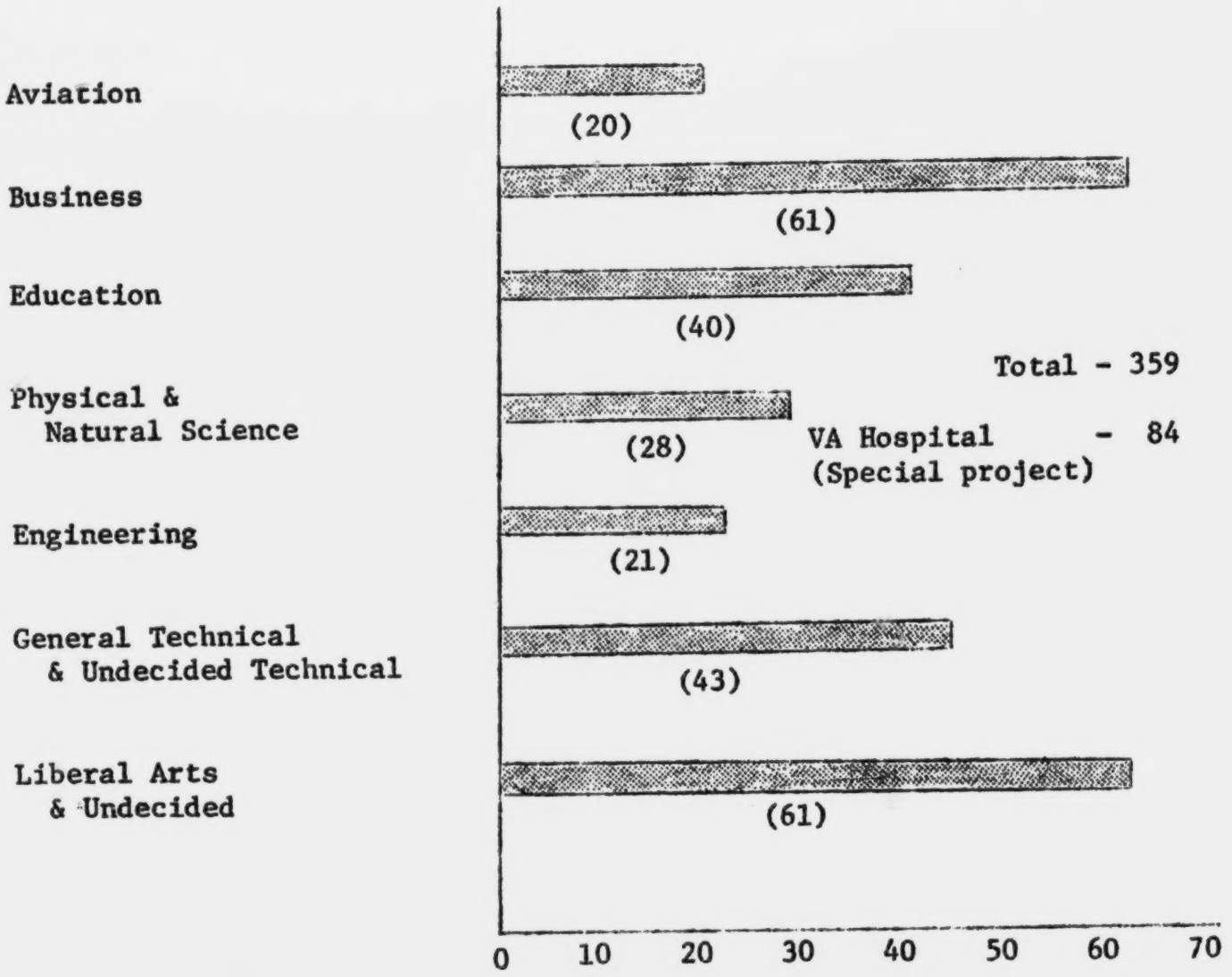
Report Prepared for Presentation
on June 17, 1968.

Dr. Robert L. Bennett
Coordinator of Cooperative Education

A SUMMARY REPORT OF THE COOPERATIVE EDUCATION PROGRAM
AT COLLEGE OF SAN MATEO FROM JULY 1, 1967, to JUNE 17, 1968

STATISTICAL DATA	Number of students requesting placement in the program with cards on file for action on June 17, 1968		359
	Students enrolled for credit during spring semester, 1968		34
	Students placed in non-credit Cooperative work stations during spring semester for reasons of partial employment or other factors		31
	Part-time placements resulting from Cooperative referrals	(est.)	20
	Veteran's Hospital New Careers Co-op		84
	Number of companies interested in developing Cooperative work stations with CSM		85

Number of Students on File by Major - 6-17-68



THE BASIC DESIGN

A recommended pattern for Cooperative Education has emerged as a result of advisory meetings, student involvement, and testing of the basic design during this first year.

1. Business personnel, advisory committees, college students, and educators are enthusiastic in their support of the concept of Cooperative Education.

2. Students participating in the program report a sense of involvement with the community that has been lacking in previous educational experiences. Statements of increased motivation to succeed in academic work have been reported in nearly all follow-up interviews.

3. Direct relationship of the career goals of the student to intensive work experience in the community is the key concept of interest to students. Employers are willing to provide "in-depth" work opportunities when students are available to cover a full-time work station.

4. Cooperative Education field experience credit does not replace, or substitute for, general education requirements. In most cases, all present requirements for Associate in Arts degree programs remain unchanged. Cooperative experience serves to provide depth and enrichment experiences for the major field of study.

5. Emphasis has been placed on securing opportunities for students to branch out beyond the offerings of our present programs. Examples: Customer Engineer (IBM), food service industries, retail and wholesale sales, petroleum marketing, jet engine mechanic helpers, computer tape industry foreman, communication engineer trainee, timekeeper accountant, data processing on a variety of equipment, public relations, teacher assistant, VISTA, and others.

6. Evaluation statements from employers are universally favorable. The one case of student rejection after placement on the job resulted in a strong letter of support for the program emphasizing the desire of the company to remain in the program.

7. Emphasis has been placed on developing Cooperative work-study relationships for students having difficulty with traditional programs. Success experiences are documented.

8. Veterans and students with financial need have been particularly attracted by the opportunity to combine work and study.

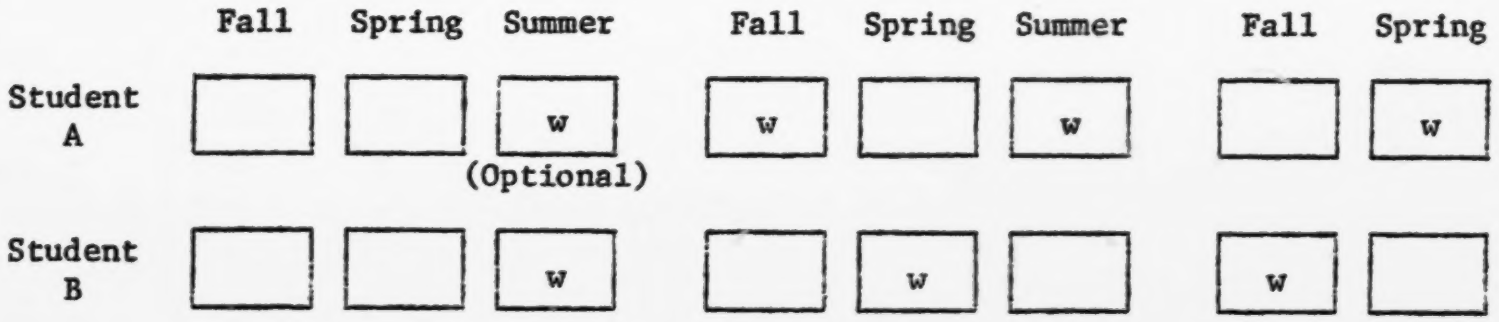
9. Transfer arrangements for the Cooperative plan have been established with San Jose State College schools of business, engineering, and industrial technology; San Francisco State College Design & Industry program and the department of education; University of California school of engineering; and Golden Gate College school of business and commerce.

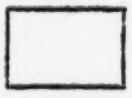
TECHNICAL & BUSINESS EDUCATION THROUGH THE COOPERATIVE PLAN

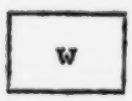
Objectives: (1) To make technical and business education more attractive to students through direct industrial and business involvement during the period of college experience; and

(2) To provide superior employment opportunities through intensive industrial internship experience.

Spacing of Work Semesters:



 Regular college instruction

 Work period

The design of the Cooperative Education program should remain flexible to meet the needs of students and industry.

* Students having industrial or military work experience may enter a work station when qualified.

* Co-op students on work station may enroll in Evening College.

* Exploratory work stations are available during summer session.

* Students are expected to join appropriate unions when the work station is covered by a union contract.

COOPERATIVE-
DISTRIBUTIVE
EDUCATION

A Research and Development Project
in Community College Cooperative Education
With Emphasis on Distributive Business Careers.

Co-Sponsored by College of San Mateo and
The California Department of Education, Business Education Division

(Spring Semester, 1968)

Project Coordinator: Mr. William Janssen

Objectives of the Distributive-Cooperative Program:

1. To determine the availability of community college level Cooperative work stations for students in distributive education.

2. To determine the extent of student interest in an educational plan where much of their training would be gained directly in business or industry.

3. To implement a pilot program phase of Cooperative Education designed specifically to meet the needs of students in distributive education at the community college level.

4. To place students on community college Cooperative work stations who can benefit from the experience.

5. To identify and place disadvantaged youth who can benefit from this type of program.

6. To summarize and publish the information gained from this project to make it available for other community colleges.

LIBERAL ARTS & UNDECIDED

Students in the liberal arts and undecided majors have repeatedly requested some means of direct community involvement during their college programs. Two programs have emerged:

Area I. VISTA

Volunteers In Service To America, the National VISTA program, is interested in establishing Cooperative volunteer work stations. Two students serve one volunteer position. The alternating semester pattern provides full-time year-around coverage of the volunteer positions.

Students are provided room, board, and transportation by VISTA. They are carefully screened and must be acceptable for the fairly rigid standards of VISTA service.

Eight College of San Mateo faculty members have volunteered to serve as a VISTA advisory committee to counsel students for the program, assist in the preliminary training of volunteers, supervise meetings between students returning from the field and those entering the volunteer service.

Four students have been placed on VISTA work stations for summer session of 1968.

Area II. Teacher Assistant

A teacher assistant training program has been developed with Cooperative Education field experience as a part of the curriculum.

Mr. Marvin Alexander and Mr. Bob Howe have done an extensive amount of preparation for the course offerings in teacher assisting (para-professional).

Meetings have been held with the Deans of Elementary and Secondary Education at San Francisco State College, representatives from San Mateo Union High School District, South San Francisco Union High School District, several elementary districts, and CSM faculty members interested in this area.

At the present time, 24 CSM education students are working in paid, part-time Cooperative arrangements with these school districts.

Direct and continuous involvement with schools and students is emphasized. A new conceptual model for teacher training is implied. Teacher candidates might begin tutoring voluntarily in the junior and senior years of high school. The CSM Teacher Assistant program would provide voluntary and paid experience during junior college. State colleges, expanding the concept, would provide more intensive classroom assistance experiences as a part of their internship requirements for certification.

ABSTRACT

TEACHER ASSISTANT PROGRAM AT COLLEGE OF SAN MATEO

An Associate in Arts Degree program with
Cooperative Education field experience.

This two-year operational project proposes to develop an educational program for the training of Teacher Assistants at College of San Mateo. Such a program will generate para-professionals specifically trained to work under the direct supervision of certificated elementary and secondary teachers, assisting them in the accomplishment of their professional duties and responsibilities.

The press of change in education demands the development of adequate support personnel for our professional teaching staff. Support personnel, adequately trained and readily available is essential to all professions today. Only in education is the key professional so grievously burdened with activities rightly performed by less highly trained personnel.

In the community, College of San Mateo has played a major role as the educational institution for training para-professionals. Now it can extend this service to provide much needed assistance to the teaching profession by offering a program for training Teaching Assistants at the elementary and secondary school levels, as well as for college readiness tutoring.

The training of the Teacher Assistant fits naturally in the junior college structure. The proposed program has been designed with flexibility to allow College of San Mateo graduates to seek and find employment at many levels in the school system--from kindergarten through junior college. Candidates will range from young students recently graduated from high school to mature women and men with varying educational backgrounds.

The Associate in Arts Degree with a Major in Teacher Assisting will prepare the individual to serve as a para-professional member of the teaching team. Teacher Assistants work with the professional teacher in tutoring individuals or small groups of students, aiding in the preparation and presentation of audio-visual instruction, grading examinations, preparing bulletin board displays, maintaining attendance records, and performing a variety of tasks under the direction of professional staff members in the school system.

An essential feature of this emerging program is the Cooperative Education field experience. In cooperation with local school districts and our Cooperative Education Department, students spend an average of fifteen hours each week working with professional teachers in selected schools as paid Teacher Assistant trainees. A second plan allows students to work alternate semesters.

TEACHER ASSISTANT
(Para-professional)

The Associate in Arts Degree with a Major in Teacher Assisting prepares the individual to serve as a para-professional member of the teaching team. Teacher Assistants work with the professional teacher in tutoring individuals or small groups of students, aiding in the preparation and presentation of audio-visual instruction, grading examinations, preparing bulletin board displays, maintaining attendance records, and performing a variety of tasks under the direction of professional staff members in the school system.

Many Teacher Assistants will continue on to an advanced college program to become professional teachers.

	Units
American Hist. & Institutions: California Govt.	4 - 8
English	6 - 8
Health Education	2
Physical Education for Teacher Assistant (emphasis on instruction for leading and supervising physical education activities)	2
ED-1 - Introduction to Education	2
ED-2 - Roles and Responsibilities of the Teacher Assistant	3
AV-61a - Audio Visual Aids	1
Reading Techniques for Teacher Assistants	3
Math 16 - Content of Elementary School Math	3
Art 8 - Public School Art	3
Music 8 - Fundamentals for the Classroom Teacher	3
Bus 92a - Typing (or proof of competence)	3
Speech 33 - Voice and Articulation	3
Psy-5 - Child Development for the Teaching Assistant	3
Phys Sci-10 - Introduction to Physical Science	3
Life Sci-10 - Introduction to Life Science	3
Electives	3 - 10
Cooperative Education Field Experience	3 - 9

Students may elect to earn field experience credit through volunteer or paid work experience in local school systems. Part-time and alternate semester work plans are available. Arrangements are made through faculty advisors.

PROVIDING HIGHER EDUCATIONAL OPPORTUNITIES FOR MINORITY GROUPS

AT COLLEGE OF SAN MATEO

PHASE I. College Readiness Program

PHASE II. New Careers Through Cooperative Education

Developmental contributors: Mr. George Mangis, Mr. Jack Atthowe, Dr. Doug Smith, Dr. Stan Goldstein, Mr. Eric Gattmann, Mr. Ben Thomas, Mr. Lee Mahood.

Goal of Phase II: To raise the educational level of competent, employed minority group workers to the Associated Arts degree through day and evening college programs.

Rationale: Large numbers of capable workers are presently employed at entrance level work stations with no hope of advancement because of the lack of educational credentials.

Providing increased opportunity for earning the Associate Arts degree would open the door to advancement with their present employers, or transfer to other employers having greater need for technical personnel.

Background: The Equal Employment Opportunities committee of Veteran's Hospital in San Mateo County requested that College of San Mateo provide classes at the Menlo Park division of the hospital for this purpose. All classes are open to the public. Students consist of employed workers, minority group and others, in the inter-agency divisions of Veteran's Hospital, Geological Survey personnel, and NASA. The majority of people served live in East Palo Alto and East Menlo Park.

Building 103 in Menlo Park, with excellent classroom facilities, has been provided for instructional purposes.

Operation: The basic design for this form of Cooperative plan is to provide college level instruction at a time and location where employed minority group workers can participate.

The concept of New Careers Through Cooperative Education can be implemented without excess costs and within the framework of our regular programs. The innovative features are the focus of the program on career objectives, the cooperative inter-action of the work station with the instructional program, and the fact that classes can be provided at times and places convenient to the students involved.

Guidance 10 and Cooperative Education 1 are taken concurrently. Students are responsible for a study of their present work stations and an evaluation of the prospects for improvement in technical skills. Since they are all full-time employees, it is possible to closely correlate their work and study activities.

No further Cooperative credit is allowed until the student has completed a minimum of 12 academic credits. This serves as a strong motivational factor to remain in continuous enrollment.

Encouragement is given to sudents to pursue course work primarily in the allied health occupations, business and technical fields, and courses on campus exclusive of the nursing programs.

COLLEGE OF SAN MATEO CONCEPTUAL MODEL FOR
UPGRADING, TRAINING, AND RE-TRAINING WORKERS
TO MEET THE NEEDS OF AN AUTOMATED, TECHNICAL SOCIETY

NEW CAREERS THROUGH COOPERATIVE EDUCATION
(Evening College)

CERTIFICATE LEVEL I

Guidance 10	(2 units)
English	(3 units)
Health Education	(2 units)
Social Science	(3 units)

+ Major Field of Study (6 units)

+ Cooperative Education
Work Experience (6 units)

TOTAL: 22 units

CERTIFICATE LEVEL II

English	(3 units)
Social Science	(3 units)
Math (by eligibility)	(3 units)

+ Major Field of Study (9 units)

+ Cooperative Education
Work Experience (6 units)

TOTAL: 46 units

ASSOCIATE ARTS DEGREE

General Education Electives (6 units)
Physical Education (Exemption)

+ Major Field of Study (5-10 units)

+ Cooperative Education
Work Experience (3 units)

TOTAL: 60 - 65 units

CALIFORNIA MASTER PLAN

CJCA--CROOTS

California Junior College Association Committee on Relations With Organizations Other Than Schools is eager to develop a master plan for Cooperative Education. It is the feeling of the group that CJCA and the California Department of Education should jointly develop support recommendations for emerging programs.

There is a need to revise legislation to prevent abuses of work-study plans as previously occurred in some apprentice training in California. Strong encouragement has been given to our program.

Another basic problem centers on adequate financing. Schools offering programs such as ours should be adequately reimbursed from State funds for coordinators and other work-study staff members. Adequate provision for counseling, job supervision, and job development is essential.

Additional planning for articulation with State Colleges, plans for inter-related instructional programs, guidelines for operation, and recommendations for specific legislation to implement meaningful programs should occur through coordinated efforts between colleges.

It is the feeling of this group that the Cooperative Education plan will receive wide acceptance in the junior colleges of California.

EVALUATION

John Arnold is a Cooperative Education student of College of San Mateo who returned to the campus in February 1968 after spending a semester working at Lockheed Missiles and Space Company as an engineering assistant.

He reports the following results:

"The one word that describes the Co-op program is contact. There is contact with industry for the first professional experience. There is contact with people who are knowledgeable in your areas of interest. There is contact with materials and ideas of your interest and with new responsibilities and duties.

"My work assignments of the past six months have been extremely profitable. The experience has been profitable from a monetary, from an educational, and most importantly from a professional standpoint.

"Speaking from a first-hand knowledge, anyone interested in manufacturing engineering, at LMSC, has a bright future.

"The educational enlargement that I have received in the past six months has been outstanding. I have been fortunate enough to work with a young man who is quite capable and intelligent. The responsibilities and duties are many. However, my time was spent primarily in hydraulics. I have learned more on the subject of hydraulics than I believe I will learn in the remainder of my schooling.

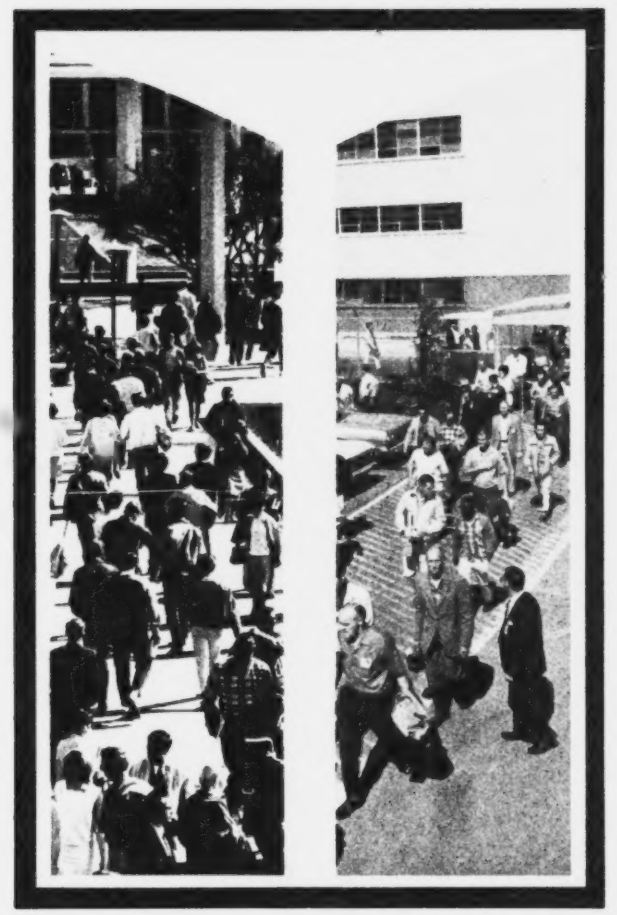
"The personal contact has been the most gratifying part of this work period. I can say with satisfaction that all the people that I have come in contact with at LMSC have been most helpful.

"I would recommend the areas where I have worked through the Cooperative plan not only to those interested in manufacturing, but also to anyone interested in becoming knowledgeable on how a large aerospace industry functions."

John H. Arnold

COOPERATIVE EDUCATION

COLLEGE
OF
SAN
MATEO



WHAT IS COOPERATIVE EDUCATION?

The Cooperative Education plan provides students with off-campus educational work experience in a technical, business or professional setting, alternating with semesters on-campus in traditional college classes.

Two students alternate periods of work and study. They hold one full-time work station in industry.

Industry is assured a full-time, highly motivated, responsible employe on a regular basis. Each Cooperative work station is maintained by a pair of students.

Students gain a deeper understanding of the relationship between classroom theory and practical application in both technical and liberal arts fields.

Productive employment under realistic competitive conditions in a real-life, adult-dominated environment provides students with insights that enrich their educational experience.

The Cooperative plan is now in use in more than 75 colleges throughout the United States. Northeastern University in Boston (enrollment 15,000) requires all students to participate. Antioch College in Ohio has a similar required program in liberal arts fields. The program at College of San Mateo is optional.

Business, professional, technical and liberal arts education all may be pursued through the Cooperative plan.

A superior educational program is provided through direct community involvement by students during the period of college education.

College is more attractive to many students because of the combination of work and study.

Improved employment opportunities are available to graduates because of the intensive industrial internship experience.

Students may transfer to upper division colleges and universities on the same basis as in other programs of instruction.

Cooperative Education student (left) and work-station supervisor confer at Lockheed Missiles & Space Company.

THE VALUE OF WORK EXPERIENCE

The purpose of the Cooperative program is to strengthen and enrich the education received by college students. It exposes students to situations that are educationally, socially, culturally and geographically different from life on the college campus or the life students have lived in previous situations. A result of the Cooperative Education experience is to broaden the student's understanding of the world in which he lives.

REAL JOBS, NOT "OBSERVATION"

Since the Cooperative program is preparing the student for life, it should be realistic in terms of its exposure for the student. Therefore, CSM searches for real job situations in business and industry which would need to be filled by full-time employes if the students were not available.

The student seeks experience which is related to his major field of study in college, and the employer is encouraged to assign this type of work when it is possible to do so. On the other hand, the job itself is set in the environment of the student's chosen field, and the student is expected to handle all tasks given to him by the employer.

ADVANTAGES TO EMPLOYERS

College-level recruiting.

Full-time employes for regular work stations.

Highly motivated workers.

60-75 percent retention as permanent employes.

WHAT THE EXPERTS SAY

Dr. Ralph W. Tyler (Stanford University), chairman of the National Commission for Cooperative Education: "Cooperative Education gives a student an education qualitatively superior in some respects to a conventional college education. Cooperative students become more mature, and their records in graduate school and in employment show that Cooperative Education is the first-rate college education."

Dean Roy L. Wooldridge (Northeastern University): "It is called 'Cooperative Education' because it is dependent upon the cooperation of employers and educators in combining to form a superior total educational program for the students."

SELECTIVE SERVICE DEFERMENT

All approved Cooperative work assignments are a regular part of the college educational program. The same Selective Service status applies to the student's time spent on work station as would apply if he were on campus.

"CO-OP" STUDENTS IN ACTION

STUDENT A entered the Cooperative program in his second year of study as a business administration major. He is employed during alternate semesters with the data processing division of a major utility company in San Jose. He will continue the alternating semester plan until he has earned the master's degree at San Jose State College.

STUDENT B studied electronics in high school and has completed his first year of electronics at College of San Mateo. He entered the Cooperative program to gain a summer employment work station. Through the employment contact available to him through this plan, he is now on an alternating work-study technician program with the Western development laboratories of an industry working in electronics research.

STUDENT C wishes to study for a hotel and restaurant management career which is not offered at College of San Mateo. He enrolled in the Cooperative plan as a business major. Alternate semesters are spent with a hotel and food service industry having a management training program employing college students.

STUDENT D did not plan to attend college. He was interested in mechanical work and wished to keep his auto service station job. He enrolled in the Cooperative plan at CSM to take advantage of the management training program offered by his employer. As a result of his success in business courses and rapid advancement in the training program with the oil company, he is now working toward a career in petroleum marketing.

STUDENT E plans to earn enough money through her Cooperative employment in a nursery school to complete her college education to become a teacher.

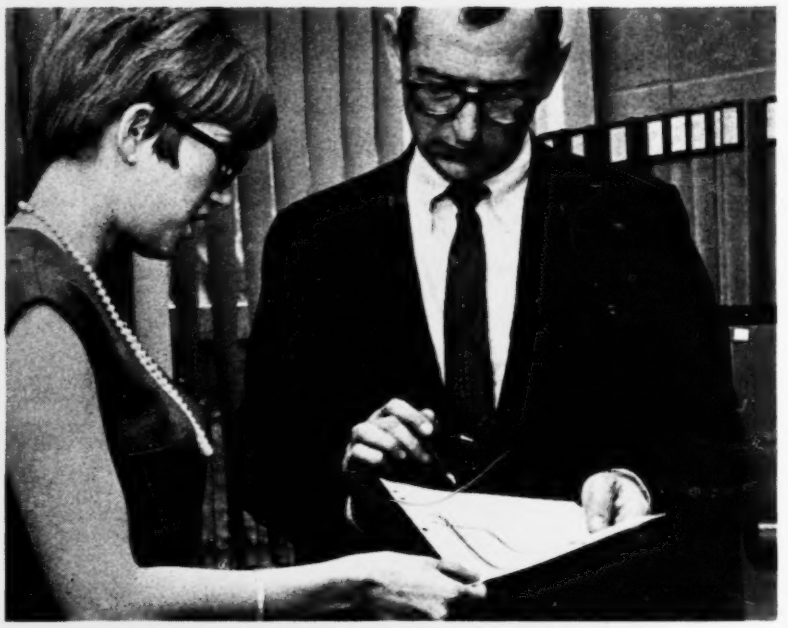
STUDENT F has the goal of working as an employe of a city or county government. He has considered police science, city planning or a career with a city water department. For this student, a series of work stations will make it possible to attain his career goal by combining college study with actual experience in public service agencies.

STUDENT G is enrolled in the Cooperative program as an engineering student. His pre-enginering work assignments have resulted in rapid advancement with the aero-space company where he is employed. He will continue his education in the Cooperative program at University of California, Berkeley.

SCHEDULING WORK-STUDY PERIODS

Most Cooperative programs lead to the Associate in Arts degree in 2½ years and the bachelor degree in five years. The student receives an amount of academic credit equal to the regular student, in addition to the educational growth and employment benefits of the Cooperative work experience.

Students may enroll in night classes during periods of employment and work part-time during on-campus semesters.



As photos at right indicate, the Cooperative plan is available to both men and women students. Top two pictures show a coed learning technical typing on campus, then applying her skills in a local office. Bottom pictures depict how technical training at college is translated into production planning "know-how" at work station in a Peninsula industry.

QUESTIONS, ANSWERS

Do I get paid while working?

Yes. You are a regular full-time employe of the company.

May I work in another state or another community?

No limitation is placed on the location of Cooperative employment.

Must I remain with the company which employs me for the first period?

No. However, there are many advantages in doing so. Advanced training and advanced pay result from staying with one company.

Must I return to school if I find that I like the job and do not wish to leave the company?

The company has hired you as an employe who plans to earn a college degree. It is essential that college experience be a part of the total plan. For this reason, another student takes your place on the job at the change of semester.

How much college credit do I receive for Cooperative Education?

The amount of credit will vary with the program in which you are enrolled. Up to a total of 15 units of credit are allowed.

I wish to become an engineer, doctor, lawyer or teacher. May I enroll in a Cooperative plan and transfer to the University of California or a state college?

Yes. High academic grades are essential, however. It is important to remember that an education involves far more than grades and credit. The knowledge and interest gained through working with professional people in the field may be the factor which challenges a student to complete a degree program.

FLEXIBLE PROGRAM DESIGN

The design of the Cooperative Education program remains flexible to meet the needs of students and industry.

Students having industrial or military work experience may enter a work station when qualified.

Co-op students on work station may enroll in Evening College.

Exploratory work stations are available during summer session.

A technical major of up to 70 units may be transferred directly to the Design and Industry program of San Francisco State College.

Freshmen may express a preference for Cooperative Education programs at the time of registration for college.

BUSINESS, INDUSTRY PARTICIPATION

A few of the companies participating in the Cooperative Education program at CSM:

Bank of Amercia, Bartels and Blaine, Cal-West Electric, Dynalectron, Electroglas, I B M, Lockheed Missiles & Space Co., Memorex, Pacific Telephone, Philco-Ford, Shell Data Service Center, South-Western Publishing Co., Standard Oil Co., United Air Lines, V I S T A and many others.

Requests for information
should be directed to:

Dr. Robert Bennett
Coordinator of Cooperative Education
College of San Mateo
San Mateo, California 94402
Phone: 341-6161

This calendar shows how two students share the same job, alternating each semester.

Student	F	S	SS	F	S	SS	F	S
A			W*	W		W		W
B			W		W		W	

Legend:
F = Fall Semester
S = Spring Semester
SS = Summer Semester
* = Optional

On Campus

W Work period